

seen of the Sparrow Hawks, but they were not so obliging. During the next two weeks occasionally one or two of them came to the old tree. Not infrequently until the last of September three of them together were seen elsewhere. In the case of some other species it has been noted that sometimes the brood was divided, the father bird taking part of them some distance from the place in which the mother cared for the others. It remains for future investigations to decide whether the father Sparrow Hawks takes the males under his guidance, and the mother Hawk the females; whether the advocates of the system of segregation of sexes in education can claim a praise-worthy precedent in the practices of the Sparrow Hawks.

In the two months they remained in the neighborhood after leaving our place the Hawks were seen most frequently about the nearest farm yard to the northwest, about the county fair grounds, and on the public school grounds. At the last named place on several occasions they were seen to perch on the brackets of the cornice of the schoolhouse. Twice the days were rainy, and the birds may have returned for shelter to their accustomed roosting places.

ADDITIONAL NOTES FROM THE MOUNTAINS OF WESTERN NORTH CAROLINA.

BY FRANCIS M. WESTON, JR.

DURING the first three weeks of September, 1912, while staying in the mountains of Transylvania County, N. C., I was able to devote some of my time to the study of the bird life of the section. The results of this study may be of interest when taken in connection with the excellent paper published by Messrs. S. C. Bruner and A. L. Feild (*Auk*, XXIX July, 1912, pp. 368-377).

The greater part of my field work was done in a restricted locality

in the lower part of the Davidson River valley about a mile and a half west of the railroad station of Pisgah Forest, and three miles north of Brevard. The valley at this point is at an elevation of about 2200 ft., and is enclosed between hills and low mountains. A few miles farther to the west, the mountains increase in size, attaining an elevation of 6000 ft. on the line between Transylvania and Haywood Counties. This ridge of high mountains is known locally as the "Balsams." The only peak of this ridge which I visited is Silver Mine Bald (6040 ft.), one of the twin peaks of Chestnut Bald.

In June, 1911, Messrs. Bruner and Feild walked for a month through the mountains of western North Carolina; and their concise, tabulated account was of great service to me. Their work was, of course, far more complete than mine, as other duties often prevented my being in the field more than a few hours a day. In consequence, they noted twenty-three species which I did not find; and described as common many species which, from the negative evidence of my notes alone, may be considered rare. However, my work was done in a month when most birds are silent as well as shy.

After the breeding season, it is probable that many species may wander several hundred feet above or below their breeding ranges; and it is not surprising that, in a few cases, I found birds some distance above or below the limits noted by Messrs. Bruner and Feild. This same reason may account for my having found thirteen species which they do not mention. These are: Pied-billed Grebe, Spotted Sandpiper, Sharp-shinned Hawk, Osprey, Pileated Woodpecker, Red-headed Woodpecker, Nighthawk, Red-winged Blackbird, Barn Swallow, Loggerhead Shrike, Worm-eating Warbler, Pine Warbler, and Redstart.

On former trips — viz., Hendersonville, Transylvania County, July 15 — Aug. 3, 1907; and Cashiers Valley, Jackson County, Aug. 4-19, 1907 — I noted four species which I did not find on the 1912 trip, and which are not mentioned by Messrs. Bruner and Feild. These are: Black Vulture, Great Horned Owl, Yellow-billed Cuckoo, and Blue-grey Gnatcatcher.

The following extract from my notes includes only those species for which my records differ from those of Messrs. Bruner and Feild, and the species which were not noted by them.

1. **Podilymbus podiceps.** PIED-BILLED GREBE.— Two Grebes were seen on Lake Toxaway (3000 ft.) on Sept. 9, and one above the mill dam on Davidson River (2200 ft.) on Sept. 13.

2. **Florida cærulea cærulea.** LITTLE BLUE HERON.— I was told on good authority that small white Herons were seen from time to time along the Davidson River. Although I did not see any, I feel confident that they must belong to this species.

3. **Butorides virescens virescens.** GREEN HERON.— A single Green Heron was seen on Davidson River (2200 ft.) on Sept. 13. In 1907, I saw two at Hendersonville (about 2100 ft.). Messrs. Bruner and Feild did not find this species above 2000 ft. in June, 1911.

4. **Actitis macularia.** SPOTTED SANDPIPER.— On Sept. 6, I saw two birds of this species feeding along the banks of Davidson River. This Sandpiper was found by Messrs. Bruner and Feild in the mountains of eastern Tennessee, but was not observed in North Carolina.

5. **Catharista urubu.** BLACK VULTURE.— In Hendersonville in 1907, I found quite a number of Vultures. They were generally seen singly, but sometimes in flocks of five or six.

6. **Accipiter velox.** SHARP-SHINNED HAWK.— Several of these Hawks were found in the Davidson River valley on and after Sept. 13. On Sept. 18, I saw two on the top of Silver Mine Bald (6000 ft.).

7. **Pandion haliaëtus carolinensis.** OSPREY; FISH HAWK.— On each of two days — Sept. 3 and 17 — I saw a Fish Hawk in the Davidson River valley (2200 ft.).

8. **Bubo virginianus virginianus.** GREAT HORNED OWL.— In 1907, I twice heard the call of this Owl at Hendersonville. Although I did not see any, I heard that one was taken a few days after I left there.

9. **Coccyzus americanus americanus.** YELLOW-BILLED CUCKOO.— In 1907, I saw one Cuckoo at Hendersonville and two in Cashiers Valley. Several were heard calling.

10. **Dryobates pubescens medianus.** DOWNY WOODPECKER.— Fairly common in and near the cleared lands of the Davidson River valley. One was found on the side of Silver Mine Bald (5200 ft.), several hundred feet higher than Messrs. Bruner and Feild noted the species in June, 1911.

11. **Phlœotomus pileatus (abieticola?).** PILEATED WOODPECKER.— The few that were seen were near the cleared lands of the valleys. None were noted above 3300 ft.

12. **Melanerpes erythrocephalus.** RED-HEADED WOODPECKER.— On Sept. 9, one was seen in the fields of the French Broad River valley at an elevation of about 2100 ft.

13. **Chordeiles virginianus virginianus.** NIGHTHAWK.— On each of two days, a few were seen in the Davidson River valley. A few were seen near Hendersonville and two in Cashiers Valley in 1907.

14. **Cyanocitta cristata cristata.** BLUE JAY.— Abundant in the Davidson River valley. I found Jays common about our camp on the side of Silver Mine Bald (5200 ft.), and saw a few at the top of the mountain

(6000 ft.). In June, 1911, Messrs. Bruner and Feild did not observe this species above 5000 ft.

15. *Agelaius phoeniceus phoeniceus*. RED-WINGED BLACKBIRD.— This species was twice noted at Hendersonville in 1907, and once in the Davidson River valley in 1912.

16. *Astragalinus tristis tristis*. GOLDFINCH.— Abundant in the Davidson River valley. One was heard on the side of Silver Mine Bald (5200 ft.)—several hundred feet higher than Messrs. Bruner and Feild noted the species in June, 1911.

17. *Cardinalis cardinalis cardinalis*. CARDINAL.— Abundant in the Davidson River valley. On Sept. 18, I found Cardinals fairly common on the side of Silver Mine Bald (5200 ft.)—several hundred feet higher than Messrs. Bruner and Feild noted the species in June, 1911.

18. *Hirundo erythrogastra*. BARN SWALLOW.— On each of three days, I found Barn Swallows quite common about the railroad station of Pisgah Forest. None were seen after Sept. 11.

19. *Lanius ludovicianus ludovicianus*. LOGGERHEAD SHRIKE.— One Loggerhead was seen in Hendersonville in 1907, and a few near Pisgah Forest in 1912.

20. *Helmitheros vermivorus*. WORM-EATING WARBLER.— I found two of these Warblers in Cashiers Valley (3500 ft.) in 1907, and two in the Davidson River valley (2200 ft.) in 1912.

21. *Dendroica vigosii*. PINE WARBLER.— One was seen in the trees bordering Davidson River (2200 ft.) on Sept. 10.

22. *Dendroica discolor*. PRAIRIE WARBLER.— I found this Warbler twice in the Davidson River valley: on Sept. 5 at 2200 ft., and on Sept. 16 at 2300 ft. Both of these records extend the range of this species as observed by Messrs. Bruner and Feild in June, 1911.

23. *Oporornis formosus*. KENTUCKY WARBLER.— On Sept. 12, I saw two of these handsome Warblers on the banks of the Davidson River (2200 ft.) In June, 1911, Messrs. Bruner and Feild did not find this species above 2000 ft.

24. *Setophaga ruticilla*. REDSTART.— In July and August, 1907, I saw one of these birds at Hendersonville and three in Cashiers Valley. In Sept., 1912, I found them fairly common everywhere in the Davidson River valley. On Sept. 18, a number were seen on the top of Silver Mine Bald (6000 ft.).

25. *Nannus hiemalis hiemalis*. WINTER WREN.— On Sept. 8, I saw a Wren of this species in deep woods at an elevation of 3200 ft. In June, 1911, Messrs. Bruner and Feild did not note it below 4000 ft.

26. *Polioptila cærulea cærulea*. BLUE-GRAY GNATCATCHER.— One Gnatcatcher was seen in Cashiers Valley in August, 1907.

27. *Hylocichla mustelina*. WOOD THRUSH.— On Sept. 18, I found a Wood Thrush in the deep woods on the side of Silver Mine Bald (5200 ft.). This is several hundred feet higher than Messrs. Bruner and Feild noted this species in June, 1911.